

Taxonomic notes on the *Evarcha falcata* species complex (Aranei Salticidae)

Таксономические заметки по комплексу видов *Evarcha falcata* (Aranei Salticidae)

Yu.M. Marusik* & D.V. Logunov**
Ю.М. Марусик*, Д.В. Логунов**

* Institute for Biological Problems of the North, K. Marx pr. 24, Magadan 685010 Russia.

* Институт биологических проблем севера ДВО РАН, Магадан 685010 Россия.

** Zoological Museum, Institute for Systematics and Ecology of Animals, Frunze Str. 11, Novosibirsk 630091, Russia.

** Зоологический музей, Институт систематики и экологии животных СО РАН, ул. Фрунзе, 11, Новосибирск 630091 Россия.

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КЛЮЧЕВЫЕ СЛОВА: *Evarcha*, Salticidae, таксономия, Голарктика.

ABSTRACT: *Evarcha falcata* (Clerck, 1757) has been shown to actually represent a complex of three sibling species, all described and illustrated upon samples covering the entire Holarctic. *E. falcata* s.str. actually occurs almost throughout Europe, reaching northern Kazakhstan, Xinjiang, China as well as West and South Siberia up to Cisbaikalia in the east. *E. hoyi* (Peckham & Peckham, 1883) is a "good" species, purely Nearctic in distribution; its lectotype is designated, and *Habrocestum latens* Banks, 1892 considered as another of its subjective junior synonyms, for the first time. *E. proszynskii* sp.n. is described from the Far East of Russia, though its actual distribution covers also much of Siberia and a part of East Kazakhstan as well as China, Korea, Japan and much of western North America. Hence the ranges of these three species are largely allopatric, although only male-containing samples in the relatively few and minor zones of contact or overlapping (Tuva, Siberia for *E. falcata* and *E. proszynskii* and the central regions of the Nearctic for *E. proszynskii* and *E. hoyi*) can be identified securely to species.

РЕЗЮМЕ: Показано, что вид *Evarcha falcata* (Clerck, 1757) на самом деле представляет собой комплекс из трех видов-двойников, причем все они описаны и проиллюстрированы по материалам, охватывающим всю Голарктику. *E. falcata* s.str. встречается почти по всей Европе, достигая на востоке Северного Казахстана, Синьцзян-Уйгурского Автономного Района (Китай), а также Западной и Южной Сибири вплоть до Прибайкалья. *E. hoyi* (Peckham & Peckham, 1883) — "хороший", самостоятельный вид, распространенный только в Неварктике; впервые выделен его лектотип и показано, что вид *Habrocestum latens*

Banks, 1892 — его очередной младший субъективный синоним. С Дальнего Востока России описан вид *E. proszynskii* sp.n., однако на самом деле его ареал захватывает значительные территории Сибири и часть Восточного Казахстана, а также Китай, Корею, Японию и большую часть запада Северной Америки. Таким образом, ареалы этих трех видов в основном аллопатрические, хотя лишь содержащие самцов пробы надежно определены в сравнительно малочисленных и небольших зонах контакта и перекрывания ареалов (в Сибири в Туве для *E. falcata* и *E. proszynskii* и в Северной Америке в центральных районах для *E. proszynskii* и *E. hoyi*).

Introduction

For a long time, *Evarcha falcata* (Clerck, 1757) was considered as the most widespread and common species of jumping spiders in the Holarctic. Even at present, it is listed in catalogues as a Holarctic form [Prószyński, 1990; Platnick, 1989, 1993: sub *flam-mata*]. *E. falcata* has repeatedly been recorded throughout Europe [Prószyński, 1976, 1983; etc.], Siberia and the Russian Far East [Prószyński, 1979; Logunov, 1992; Logunov & Wesołowska, 1992; Danilov & Logunov, 1994; Marusik et al., 1993a, b; etc.], China [Hu & Wu, 1989; Peng et al., 1993; etc.] and Japan [Yaginuma, 1986]. In the New World, the species has been referred to either as *E. falcata* [cf. Richman & Cutler, 1978] or as a separate subspecies, *E. falcata hoyi* (Peckham & Peckham, 1883) [cf. Prószyński, 1976].

Kaston [1945: sub *E. blancardi* and *E. hoyi*] and, later, Edwards [1980] noted consistent differences between *E. falcata* and *E. hoyi*. Thanks to these publications, it has long become clear that

these are two separate species confined to the Western or Eastern Hemisphere, respectively. Moreover, Maddison [1982] has found the *E. hoyi* karyotype to be polymorphic: the northern populations show a male XXO sex determining system, while the southern a XXXY one. Therefore, he has assumed that the northern and southern populations of *E. hoyi* may prove to represent distinct, reproductively isolated, sibling species.

At the beginning of the 1990's, when we first compared specimens from British Columbia and Sakhalin, we were able to trace no differences between East Palaearctic and West Nearctic samples. Hence we believed that *E. hoyi* did represent a junior synonym of *E. falcata*. Later, when we started working on an illustrated key to the northern Palaearctic Salticidae, we again returned to the *E. falcata* problem. As a result, clear differences between European and Siberian-Far Eastern specimens, on the one hand, and between West and East Nearctic samples, on the other hand, have been found, the latter findings supporting Maddison's [1982] idea about the occurrence of two separate species reported under the name *E. hoyi*. Among the specimens studied, beyond any doubt the East Palaearctic and West Nearctic ones belong to the same species described here as new. Thus, there are three sibling species with more or less restricted distributions rather than a single Holarctic species.

Recently, Peng [1989] has recorded *E. hoyi* in China. In addition, Peng et al. [1993] have provided comparative drawings of *E. falcata* and *E. hoyi*. Their illustrations of what they thought to represent the latter species [Peng et al. 1993: figs 188-195] leave no doubts that they actually dealt with the new species described herein, while their figures of what they considered *E. falcata* [Peng et al. 1993: figs 184-187] seem to belong to another species, most probably *E. mongolica* Danilov & Logunov, 1994 [cf. Danilov & Logunov, 1994].

Thus, the main objective of the current paper is to revise the *Evarcha falcata* species group within both Palaearctic and Nearctic.

Material and methods

This study is based on examination of over 1,000 adult specimens labeled as *E. falcata* or/and *E. hoyi*. The bulk of material derives from the United States and Siberia. Abbreviations of the institutions and individuals who provided material are as follows: AMNH — American Museum of Natural History, New York (N.I. Platnick); CNC — Canadian National Collection, Ottawa (C.D. Dondale); HIC — H. Ikeda, private collection; IBPN — Institute for Biological Problems of the North, Magadan (Y.M. Marusik); ISE — Zoological Museum, Institute for Systematics and Ecology of Animals, Novosibirsk (D.V. Logunov); MCZ — Museum of Comparative Zoology, Harvard Univer-

sity, Mass. (H. Levi and L. Leibensperger); NMSU — New Mexico State University, Las Cruces (D.B. Richman); UWBM — University of Washington, Burke Museum, Seattle (R. Crawford); ZMB — Zoologisches Museum der Humboldt-Universität, Berlin (M. Moritz); ZMMU — Zoological Museum of the Moscow State University (K.G. Mikhailov); ZMTU — Zoological Museum, Turku University (S. Koponen).

Abbreviations used in the figures and in the text are as follows: ap. — apical; d. — dorsal; Fm. — femur; Mt. — metatarsus; pr. — prolateral; Pt. — patella; rt. — retrolateral; Tb. — tibia; v. — ventral. Names of some collectors are abbreviated as follows: AB — A.M. Basarukin, RC — R. Crawford, WI — W. Ivie, JG — J.W. Gertsch, RG — R. Guppy, HL — H. Levi, DL — D.V. Logunov, BM — B. Malkin, YM — Yu.M. Marusik, VR — V. Roth, JS — J. Schuh. For leg spination, the system adopted is that used by Ono [1988]. The sequence of leg segments in measurement data is as follows: femur + patella + tibia + metatarsus + tarsus. All measurements are in mm.

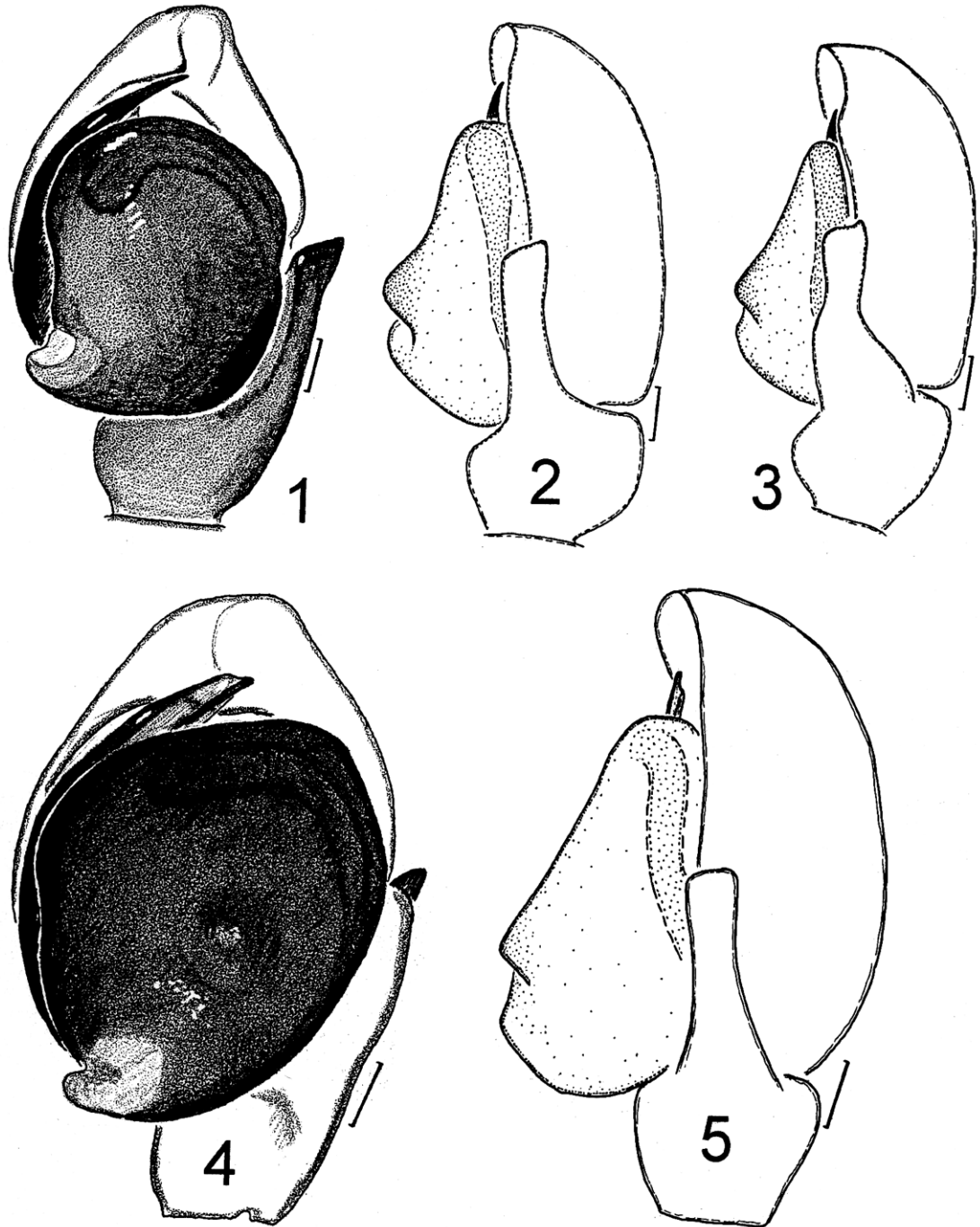
Descriptions

Evarcha falcata (Clerck, 1757)

Figs 4, 5, 12, 13, 15-17.

Preference of the name *E. falcata* over *E. flammata* has been demonstrated by Roberts [1993] who showed the latter to be a nomen dubium. In our study, we follow Roberts' opinion. A complete synonymy list of *E. falcata* can be found in Bonnet [1945], Prószyński [1990] and Platnick [1989, 1993: sub *E. flammata*].

MATERIAL. UKRAINE: Zakarpatskaya Area: 2♂♂ (IBPN), Perechynski Distr., environs of Lumshory, 700 m, 11.VIII.1981 (YM). Chernovtsy Area: 1 ♂ (ZMMU), Novodnestrovsk, 23.VIII.1979 (K.G. Mikhailov). **RUSSIA:** Voronezh Area: 1 ♀ (ISE), Ternovka, 5.VIII.1979 (A.A. Zyuzin); 1 ♂, 4 ♀♀ (ZMMU), Ternovka Distr., Savelskoye Forestry, 7.VIII.1980 (K.G. Mikhailov). Belgorod Area: 4 ♀♀ (ISE), Borisovka, 9.VI.1982 (DL). Moscow Area: 1 ♂ (ISE), Pushchino, 14.VI-5.VII.1982 (V.E. Gokhman). Kostroma Area: 10 ♂♂, 6 ♀ (ZMMU), 3 ♂♂, 4 ♀♀ (ISE), Manturovo Distr., Davydovo, 8-17.VI.1982 (E.M. Veselova). Chelyabinsk Area: 2 ♀♀ (ISE), Lake Turganskoe, 30.VIII.1979 (N. Poltchaninova); 1 ♂ (ISE), Uiskoe Distr., Petropavlovka, 8.VII.1989 (V.P. Pekin). Kurgan Area: 1 ♂ (ISE), Ukrainets, 25.V.1990 (V. Smirnov); 3 ♂♂, 2 ♀♀ (ISE), Uval, 5.VI.1989 (N. Utkin). Komi Republic: 1 ♂, 1 ♀ (ZMMU), Sivaya Maska, Usty River, 13.VIII.1980 (A.V. Tanasevitch). Tyumen Area: 1 ♂, 5 ♀♀ (ISE), Yugansky Nature Reserve, 30.V-14.VI.1989 (T. Pereyaslovets); 1 ♀ (ZMMU), Evenkia, Taimura River, mouth of Neptene River, 26.VII.1982 (K.Y. Eskov). Novosibirsk Area: 12 ♂♂, 2 ♀♀ (ISE), Lake Chany, 13-15.VIII.1992, (V.V. Dubatolov); 10 ♂♂, 2 ♀♀ (ISE), ca. 8 km SW of Severnoye, 16.VIII.1990 (V.P. Pekin); 3 ♂♂, 5 ♀♀ (ISE), Krasnozerskoye, VII.1990 (A.A. Alekseev); 1 ♂, 1 ♀ (ISE), Biaza, 28.V.1990 (V.P. Pekin); 3 ♂♂, 1 ♀ (ISE), Kolyvan, 25.VI.1987 (DL); 4 ♂♂ (ISE), Iskitim Distr., Malinovka, 15.VIII.1987 (DL). Gorno-Altayskaya Republic: 12 ♂♂, 2 ♀♀ (ISE), Teletskoe Lake, Artybash, VII-VIII.1992 (V.V. Dubatolov); 3 ♂♂ (ISE), ca. 30 km W of Akutikha, Soldatovo, VII.1990 (S.V. Vasilenko). Krasnoyarsk Province: 9 ♂♂, 5 ♀♀ (ISE), Khakassia, Askiz Distr., 10-15 km W of Biriktchul, 1200-1300 m, VII.1990 (DL); 1 ♂, 2 ♀♀ (ISE), Bolshe-Murtinsk Distr., Yukseevo,

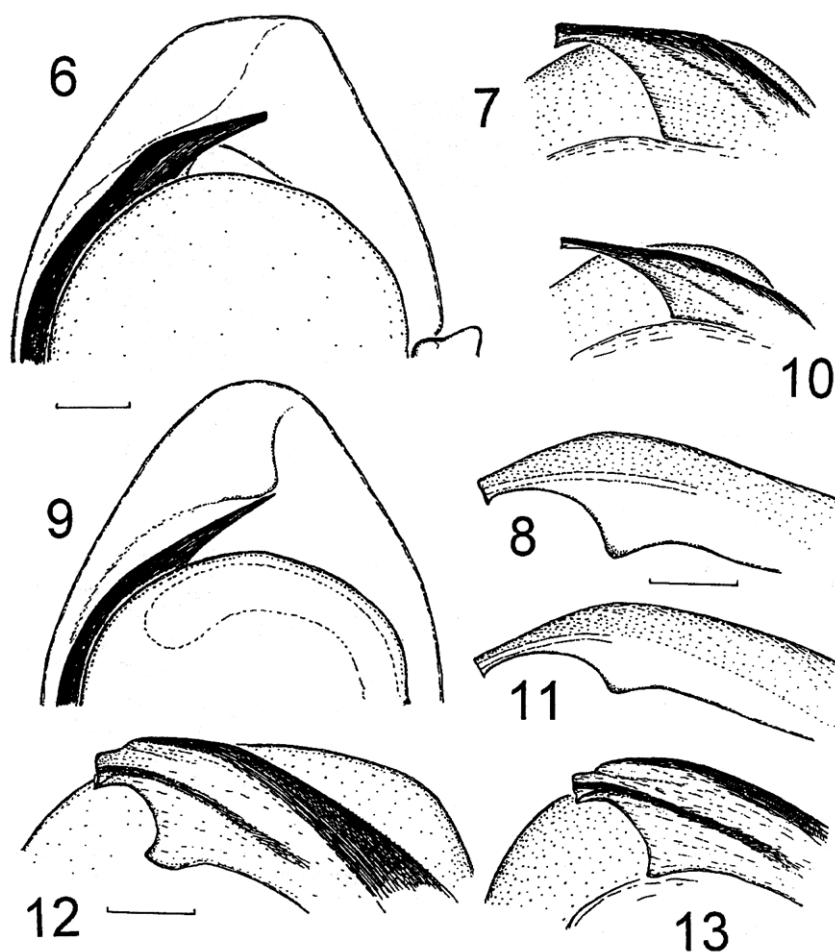


Figs 1-5. Left palps of ♂ *Evarcha prozysniskii* sp.n. from Alberta (1, 2), *E. boyi* (Peckham & Peckham, 1883) from Minnesota (3) and *E. falcata* (Clerck, 1757) from North Kazakhstan (4, 5): 1, 4 — ventral view; 2, 3, 5 — retrolateral view. Scale: 0.1 mm.

Рис. 1-5. Левые пальпы самцов *Evarcha prozysniskii* sp.n. из Альберты (1, 2), *Evarcha boyi* Peckhams из Миннесоты (3) и *Evarcha falcata* Clerck из Северного Казахстана: 1, 4 — вид вентрально; 2, 3, 5 — вид ретролатерально. Масштаб: 0.1 мм.

IX.1991 (A.V. Gurov); 1 ♂ (ISE), Yermakovskoye Distr., 2-3 km N of Aradan, Us River valley, ca. 840 m elev., 8-9.VII.1990 (DL); 4 ♀♀ (ISE), same distr., 180th km of highway Abakan-Kyzyl, -1000 m, 21.VIII.1988 (D.L. Grodnitsky); 1 ♂ (ISE), same distr., Tanzybei, -380 m, 26.VI.1990 (DL). **Buryatia:** 1 ♂, 2 ♀♀ (ISE), Ulan-Ude, 24.VII.1990 (M.T. Shternbergs). **Irkutsk Area:** 7 ♂♂, 15 ♀♀ (ZISP), Padun on Angara River, summer 1867 (Cze-

kanowski). **KAZAKHSTAN: N-Kazakhstan Area:** 8 ♂♂, 9 ♀♀ (ISE), Sokolovo Distr., Bolshaya Malyska, 10.VI.1986 (DL). **Pavlodar Area:** 5 ♂♂, 1 ♀ (ISE), Zheleznovskiy Distr., ca. 15 km S of Mikhailovka, 28.VII.1990, (O.V. Lyakhov); 3 ♂♂, 2 ♀♀ (ISE), Lebyazhinsky Distr., ca. 3 km N of Shoktal, 5.VII.1990 (O.V. Lyakhov). **Akmola Area:** 1 ♂ (ZISP), Kokshetau Mts., 11.VI.1957 (V.P. Tyshchenko).



Figs 6-13. Embolic tips of *Evarcha* spp.: 6, 7, 8 — *E. prozysniskii* sp.n. from Washington (6), Alberta (7) and Oregon (8); 9, 10, 11 — *E. hoyi* from New Jersey (9), Minnesota (10) and Connecticut (11); 12, 13 — *E. falcata*, both from North Kazakhstan. Scale: 0.1 mm.

Рис. 6-13. Кончики эмболюсов *Evarcha* spp.: 6, 7, 8 — *Evarcha prozysniskii* sp.n. из Вашингтона (6), Альберты и Орегона (8); 9, 10, 11 — *Evarcha hoyi* Peckhams из Нью Джерси (9), Миннесоты (10) и Коннектикута (11); 12, 13 — *Evarcha falcata* Clerck, оба из Северного Казахстана. Масштаб: 0.1 мм.

DIAGNOSIS. The ♂ of *E. falcata* can easily be distinguished from that of both sibling species by the broad and blunt apical part of the embolus (Figs 4, 12-13) and the more ventrally extended tegulum (Fig. 5). The ♀ of *E. falcata* is almost indistinguishable from that of *E. prozysniskii*, but it differs from ♀ *E. hoyi* by the longer copulatory ducts (Figs 16-17) and the broader receptacula.

DESCRIPTION (specimens from Artybash, Altai).

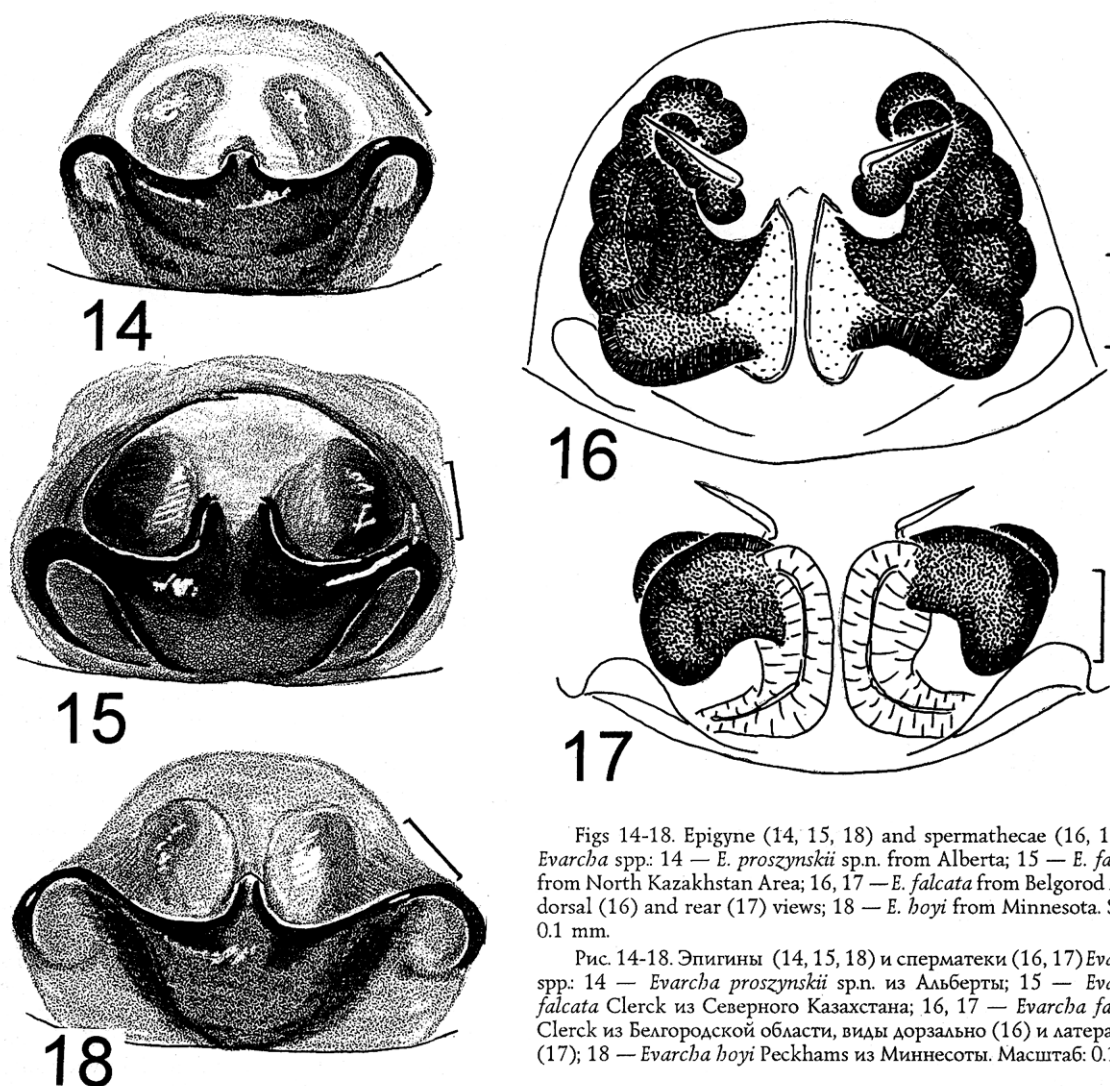
Male: Measurements. Carapace 2.03 long, 1.53 wide, 1.00 high at PLE. Ocular area 0.98 long, 1.25 wide anteriorly and 1.29 wide posteriorly. Diameter of AME 0.38. Abdomen 2.03 long, 1.45 wide. Cheliceral length 0.650. Clypeal height 0.08. Length of leg segments: leg I — $1.13 + 0.70 + 0.78 + 0.58 + 0.43$; leg II — $0.76 + 0.60 + 0.60 + 0.53 + 0.35$; leg III — $1.30 + 0.63 + 0.68 + 0.70 + 0.45$; leg IV — $1.20 + 0.55 + 0.73 + 0.83 + 0.45$. Leg spination. Leg I: Fm. d.0-1-1-3ap.; Pt. pr.0-1-0; Tb. pr.1-1, v.2-2-2ap.; Mt. v.2-2ap. Leg II: Fm. d.0-1-1-3ap.; Pt. pr.0-1-0; Tb. pr.1-1, v.1-2-2ap.; Mt. pr.1-1, v.2-2ap. Leg III: Fm. d.0-1-1-3ap.; Pt. pr.0-1-0; Tb. pr.1-1, v.1-2-2ap.; Mt. pr.1-1, v.2-2ap. Leg IV: Fm. d.0-1-1-3ap.; Pt. pr.0-1-0; Tb. pr.1-1, v.1-2-2ap.; Mt. pr.1-1, v.2-2ap.

0.15. Length of leg segments: leg I — $1.65 + 1.12 + 1.11 + 0.75 + 0.53$; leg II — $1.48 + 0.95 + 0.90 + 0.63 + 0.53$; leg III — $1.88 + 0.85 + 0.98 + 1.03 + 0.60$; leg IV — $1.83 + 0.80 + 1.11 + 1.17 + 0.60$. Leg spination. Leg I: Fm. d.0-1-1-3ap.; Pt. pr.0-1-0; Tb. pr.1-1, v.2-2-2ap.; Mt. v.2-2ap. Leg II: Fm. d.0-1-1-3ap.; Pt. pr.0-1-0; Tb. pr.1-1, v.1-2-2ap.; Mt. pr.1-1, v.2-2ap. Leg III: Fm. d.0-1-1-3ap.; Pt. pr. and rt.0-1-0; Tb. d.1-0, pr.1-1-1, rt.1-1, v.1-2ap.; Mt. pr. and rt.1-2ap., v.2-2ap. Leg IV: Fm. d.0-1-1-2ap.; Pt. pr. and rt.0-1-0; Tb. pr. and rt.1-1-1, v.1-2ap.; Mt. pr., rt. and v.1-1-2ap. Coloration (see also Roberts [1995: plate 14, fig. 5b]). Carapace brown, covered with dark hairs. Eye field bordered below by a wide yellow band. Black around eyes. Clypeus yellow to yellow-brown, sparsely covered with white hairs. Sternum yellow to brown. Maxillae, labium and chelicerae yellowish-brown. Abdomen: dorsum and sides brownish-grey, dorsum often with colour markings of paired black patches; venter yellow. Book-lung covers yellow. Spinnerets brown. Legs brownish to yellow-brownish, sometimes basal parts of

III: Fm. d.0-1-1-3ap.; Pt. pr. and rt.0-1-0; Tb. pr.1-1-1-2ap., rt.1-1, v.1-2ap.; Mt. pr. and rt.1-2ap., v.2-2ap. Leg IV: Fm. d.0-1-1-3ap.; Pt. pr. and rt.0-1-0; Tb. pr. and rt.1-1-1, v.1-2ap.; Mt. pr. and rt.1-1-2ap., v.2ap. Coloration (see also Roberts [1995: plate 14, fig. 5a]). Carapace brown with a pair of longitudinal yellow bands densely covered with white hairs. Eye field brown, also covered with white hairs. Sides of carapace and median area densely covered with brown hairs. Clypeus yellow to brownish, sparsely covered with light hairs. Sternum, maxillae, labium and chelicerae yellow-brown. Abdomen: dorsum with two longitudinal dark brown stripes of hairs and a median yellow-brown band, rear 1/3 dorsum often with a triangular yellow spot; each side with a longitudinal yellow stripe bordering dorsum, dark brown beneath it; venter yellow to yellow-brown. Book-lung covers yellow. Spinnerets dark brown. Legs: coxae, basal parts of femora yellow, metatarsi and tarsi yellow; distal halves of femora dark brown; remaining segments brownish-yellow. Palpal structure as in Figs 4-5, 12-13.

Female: Measurements.

Carapace 3.00 long, 2.43 wide, 1.25 high at PLE. Ocular area 1.35 long, 1.78 wide anteriorly and 1.83 wide posteriorly. Diameter of AME 0.50. Abdomen 4.05 long, 2.88 wide. Cheliceral length 1.38. Clypeal height



Figs 14-18. Epigyne (14, 15, 18) and spermathecae (16, 17) of *Evarcha* spp.: 14 — *E. prozysniskii* sp.n. from Alberta; 15 — *E. falcata* from North Kazakhstan Area; 16, 17 — *E. falcata* from Belgorod Area, dorsal (16) and rear (17) views; 18 — *E. hoyi* from Minnesota. Scale: 0.1 mm.

Рис. 14-18. Эпигины (14, 15, 18) и сперматеки (16, 17) *Evarcha* spp.: 14 — *Evarcha prozysniskii* sp.n. из Альберты; 15 — *Evarcha falcata* Clerck из Северного Казахстана; 16, 17 — *Evarcha falcata* Clerck из Белгородской области, виды дорсально (16) и латерально (17); 18 — *Evarcha hoyi* Peckhams из Миннесоты. Масштаб: 0.1 мм.

femora and coxae lighter than other segments. Epigyne and spermathecae as in Figs 15-17.

DISTRIBUTION. Almost entire Europe (except for the Iberian Peninsula, S-Italy, Corsica, Greece, Ireland and Iceland), W-Siberia and Cisbaikalia (see Fig. 23). In the north, *E. falcata* occurs throughout Finland up to 70°N [Koponen, 1984] and Sweden up to Kilpisjärvi [Palmgren, 1965]. In Russia, it reaches the Arctic Circle. In the Asian part of Eurasia, *E. falcata* has been recorded in China (Xinjiang) [Zhou & Song, 1988; Hu & Wu, 1989]. The southern range limit coincides with about 41° latitude in the central E-Mediterranean, with 50° in Russia and Kazakhstan, reaching ca. 47° in Xinjiang.

Evarcha hoyi (Peckham & Peckham, 1883)
Figs 3, 9-11, 18, 21, 22.

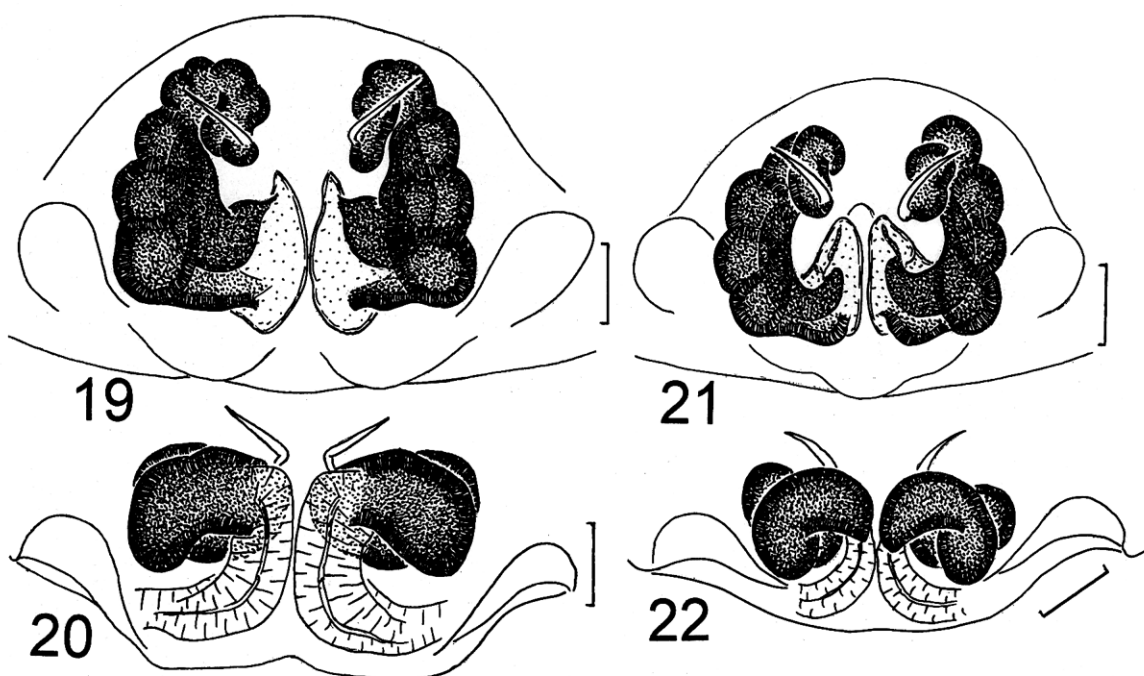
A complete reference list for *E. hoyi* see in Bonnet [1945] and Prószyński [1990]. Here we consider only the species which were earlier referred to by different authors as junior synonyms of *E. hoyi*, to show that none of these names can be applied to our new species.

Attus hoyi Peckham & Peckham, 1883: 7 (syntypes from the MCZ, examined). Adult male lectotype (designated herein) and 2 juv. paralectotypes (designated herein). Left palpus absent from the vial with syntypes. While there are three specimens in the type series, we guess that only the adult male was used for the original description, so it is designated herein as the lectotype. Two juvenile (subadult) males can be treated as paralectotypes. Since the species has been described from Pennsylvania and Wisconsin, it is likely that we deal with syntypes.

Attus pinus Peckham & Peckham, 1883: 20. No female holotype of *A. pinus* has been found either in the MCZ or in the Milwaukee Public Museum (L. Leibensperger & J. Jass, personal communication). So we follow Bonnet [1945] in considering this species as a junior synonym of *Evarcha hoyi*.

Ergane taeniata Keyserling, 1884: 507 (female holotype from the MCZ, examined). While the label indicates it is a male, in fact it is a female belonging to another species, most probably not even to *Evarcha*.

Euophrys amabilis C.L. Koch, 1846: 215, fig. 1260 (female holotype (subadult) from the ZMB, examined). The holotype was originally pinned, so we have removed it into alcohol. As the holotype of *E. amabilis* is juvenile, the species must be considered a nomen dubium. Moreover, this specimen seems to belong to a genus different from *Evarcha*.



Figs 19-22. Spermathecae of *Evarcha* spp.: 19, 20 — *E. prozysniskii* sp.n. from Maritime Province, dorsal (19) and rear (20) views; 21, 22 — *E. hoyi* from Minnesota, dorsal (21) and rear (22) views. Scale: 0.1 mm.

Рис. 19-22. Сперматеки *Evarcha* spp.: 19, 20 — *Evarcha prozysniskii* sp.n. из Приморья, виды дорзально (19) и латерально (20); 21, 22 — *Evarcha hoyi* Peckhams из Миннесоты, виды дорзально (21) и латерально (22). Масштаб: 0.1 мм.

Euophrys farinosa C.L. Koch, 1846: 223 (nomen praecuratum).

Euophrys leucophaea C.L. Koch, 1846: 216, fig. 1261 (male holotype from the ZMB, examined). *E. leucophaea* was erroneously placed among junior synonyms of *E. hoyi* by Bonnet [1945] and Prószyński [1990]. Later, *Euophrys leucophaea* was found to be a junior synonym of *Metaphidippus protervus* (Walckenaer, 1837) [cf. Edwards, 1980].

Habrocestum latens Banks, 1892: 77 (female syntypes from the MCZ, examined). We support the idea of Bonnet [1945] that this species is a junior synonym of *Evarcha hoyi*.

Salticus borealis Blackwall, 1846: 35. The types collected in the environs of Toronto could not be located for re-examination.

Material (selected localities). **CANADA: Ontario:** 1 ♀ (ISE), 10 km W of Carleton Place, 2.VII.1990 (YM). **Québec:** 1 ♂, 1 ♀ (ISE): Saint-Charles, 46°47'N 70°58'W, 30.V-1.XI.1990 (S. Koppinen). **UNITED STATES: Wisconsin:** 1 ♂ (lectotype of *Attus hoyi*, designated herein, MCZ), 2 juv. (paralectotypes, designated herein, MCZ), "Pkm. Type. 1883; Wis[consin]", G.W. Peckham's Coll. **New York:** Ithaca: 1 ♀ (lectotype of *Habrocestum latens*, designated herein, MCZ), 4 ♀♀ (paralectotypes, designated herein, MCZ), "Nathan Banks Coll. Ithaca N.Y."; 1 ♂, 1 ♀ (AMNH), Torne Mt., Suffern, 27.VI.1939 (W.J. Gertsch). **Connecticut:** 3 ♂♂, 5 ♀♀ (AMNH), New Haven County, Cheshire, 12.VI.1935 (H.L. Johnson). **Iowa:** 1 ♂ (AMNH), North Liberty, W91°37' N41°45', 13.IX.1942 (D.T. Jones). **Maine:** 2 ♂♂, 1 ♀ (AMNH), Lincoln County, 29.VII.1948 (D.J. Borror). **Michigan:** 1 ♂ (AMNH), St. Clair County, New Baltimore, 5.VI.1944 (BM). **Minnesota:** 1 ♂ (MCZ), Winona County, John Latsch St. Pk., near Minneiska, 12.VI.1961 (HL). **Montana:** 1 ♂, 1 ♀ (AMNH), Raville County, Trappers Peak, 14.VII.1933 (W.L. Jellison). **New Hampshire:** 2 ♂♂, 2 ♀♀ (AMNH), West Ossipee, VIII.1936 (S. Mulaik). **New Jersey:** 1 ♂ (AMNH), Lakehurst (Lake Horicon), W74°19' N40°00', 27.VI.1964 (WI). **North Dakota:** 1 ♂ (AMNH), Walhalla, 6.VII.1942 (J.M. Davis). **Pennsylvania:** 1 ♂ (AMNH), Wilawana, 10.VI.1940 (R.H. Crandall). **Vermont:** 1 ♂, 1 ♀ (AMNH), Windham County, Westminster West, 10.VI.1960

(M.S. Wilson). **Virginia:** 1 ♂ (AMNH), Alleghany County, Clifton Forge, 16.IX.1950 (R.L. Hoffman). **West Virginia:** 2 ♂♂ (AMNH), Ohio County, Wheeling, 08.X.1947 (K.W. Haller). **Utah:** 1 ♂ (MCZ), Great Salt Lake, NE Antelope Isl., 31.V.1908 (R.V. Chamberlin) [Note: maybe someone mixed this sample with the vial from Alabama].

Comparative material. *Ergane taeniata*: 1 ♀ (holotype, MCZ), "20 *Ergane taeniata* Keys. "1 United States". — *Euophrys amabilis*: 1 juv. (holotype, ZMB 1808), "Pennsylvanien, Zimmermann leg".

DIAGNOSIS. The ♂ of *E. hoyi* resembles closely that of *E. prozysniskii*, being distinguished by the thinner and sharply pointed embolus (cf. Figs 6-8 and 9-11) and the tibial apophysis broadened at base (Fig. 3). The ♀ of *E. hoyi* differs from that of *E. prozysniskii* by the narrower terminal parts of the spermathecae (fused loops), the shorter and thinner copulatory (insemination) ducts and the wider lateral pockets (Figs 21, 22).

DESCRIPTION (specimens from Minnesota). **Male:** Measurements. Carapace 2.40 long, 1.70 wide, 1.03 high at PLE. Ocular area 2.43 long, 1.43 wide anteriorly and 1.45 wide posteriorly. Diameter of AME 0.33. Abdomen 2.13 long, 1.60 wide. Cheliceral length 0.70. Clypeal height 0.13. Length of leg segments: leg I — 1.38 + 0.85 + 0.93 + 0.70 + 0.48; leg II — 1.20 + 0.70 + 0.70 + 0.70 + 0.40; leg III — 1.55 + 0.70 + 0.75 + 0.80 + 0.50; leg IV — 1.40 + 0.65 + 0.80 + 0.88 + 0.48. Leg spination. Leg I: Fm. d.0-1-1-3ap.; Pt. pr.0-1-0; Tb. pr.1-1, v.2-2-2ap.; Mt. v.2-2ap. Leg II: Fm. d.0-1-1-4ap.; Pt. pr.0-1-0; Tb. pr.1-1-1, v.1-2-2ap.; Mt. pr.1-1, v.2-2ap. Leg III: Fm. d.0-1-1-3ap.; Pt. pr. and rt.0-1-0; Tb. d.1-0, pr and rt.1-1-1, v.1-2ap.; Mt. d.1-0, pr. and rt.1-2ap., v.2-2ap. Leg IV: Fm. d.0-1-1-3ap.; Pt. pr. and rt.0-1-0; Tb. d.1-0, pr. and rt.1-1-1, v.1-2ap.; Mt. d.1-0, pr.1-2ap., rt.1-1-2ap., v.1-2ap. Coloration as described for *E. falcata*. Palpal structure as in Figs 3, 9-11.

Female: Measurements. Carapace 2.58 long, 1.98 wide, 1.05 high at PLE. Ocular area 1.18 long, 1.58 wide anteriorly and 1.65 wide posteriorly. Diameter of AME 0.45. Abdomen 3.25 long, 2.33 wide. Cheliceral length 0.75. Clypeal height 0.18. Length of leg segments: leg I — 1.25 + 0.78 + 0.85 + 0.65 + 0.45; leg II — 1.20 + 0.63 + 0.75 + 0.60 + 0.43; leg III — 1.60 + 0.75 + 0.80 + 0.85 + 0.53; leg IV — 1.60 + 0.75 + 0.93 + 1.08 + 0.53. Leg spination. Leg I: Fm. d.0-1-1-3ap.; Pt. pr.0-1-0; Tb. pr.1-1, v.2-2-2ap.; Mt. v.2-2ap. Leg II: Fm. d.0-1-1-4ap.; Pt. pr.0-1-0; Tb. pr.1-1, v.1-2-2ap.; Mt. pr.1-1, v.2-2ap. Leg III: Fm. d.0-1-1-3ap.; Pt. pr. and rt.0-1-0; Tb. d.1-0, pr. and rt.1-1-1, v.1-2ap.; Mt. d.1-0, pr. and rt.1-2ap., v.2-2ap. Leg IV: Fm. d.0-1-1-3ap.; Pt. pr. and rt.0-1-0; Tb. d.1-0, pr. and rt.1-1-1, v.1-2ap.; Mt. d.1-0, pr. and rt.1-1-2ap., v.1-2ap. Coloration as described for *E. falcata*. Epigyne and spermathecae as in Figs 18, 21, 22.

DISTRIBUTION as shown in Fig. 23. Specimens recorded from from Utah and Montana (see material examined) were most probably mislabeled.

Evarcha prozyskii sp.n.

Figs 1, 2, 6-8, 14, 19, 20.

E. falcata: Dunin, 1984: 132, figs. 14-16.

E. falcata: Kim, 1991: 290.

E. flammata: Yaginuma, 1986: 225, fig. 3, plate 60, fig. 3; Chikuni, 1989: 282, figs. 35 [1-4].

E. falcata hoyi: Peng et al., 1993: 68, figs. 188-195.

Material. Holotype ♂ (ISE), RUSSIA, Maritime Province (= Primorie), Lazovsky Nature Reserve, 15-26.IV.1981, T.I. Oliger. — Paratypes: 4 ♂♂, 3 ♀♀ (ISE), together with holotype; 5 ♂♂, 2 ♀♀ (ISE), same locality, 1.VII.1976, 28-29.VIII.1977, 18.VIII.1980, 31.V.1988 (T.I. Oliger); 1 ♂ (ISE), same locality, Kievka, 11.VII.1979 (T.I. Oliger); 1 ♂, 2 ♀♀ (ZMMU), Ussuriysky Nature Reserve, Kamenushka River, 6.VIII.1983 (A.V. Antropov). **Chita Area:** 2 ♂♂ (ISE), 60-65 km SW of Kyra, Sokhondo Nature Reserve, 1400-1650 m, VI.1991 (DL & S.E. Tchernyshov). **Sakhalin:** 8 ♂♂, 2 ♀♀ (ISE), Yuzhno-Sakhalinsk, Dolina Turistov, 27.VI-28.VII.1985, 28.VII.1987, 11.IX.1989 (AB); 7 ♂♂, 6 ♀♀ (ISE), Aniva Distr., Novoalessandrovsk, summers of 1985 and 1986, 3.IX.1988, 9.VII.1989, 1-18.VIII.1990 (AB); 4 ♂♂, 3 ♀♀ (ISE), same distr., Lugovoe, 30.V-13.VIII.1985 (AB); 2 ♀♀ (ISE), same distr., Uspenskoe, 24.VI.1985 (AB); 3 ♂♂ (ISE), Makarovo Distr., Nitui River, 9.VI-19.VII.1988 (AB); 4 ♂♂, 4 ♀♀ (ISE), same distr., Pugatchevo, 5-6.IX.1988 (AB); 5 ♂♂ (ISE), Uglegorsk, 4-15.VIII.1984 (AB); 2 ♂♂, 1 ♀ (ISE), Korsakovo Distr., Utesnoe, 12.VI.1986 (AB); 3 ♂♂, 3 ♀♀ (ISE), 1 ♂ (IBPN), Okha Distr., Beriozovka River (tributary of Bolshaya River), 29.VIII-26.IX.1990 (AB); 1 ♂, 4 ♀♀ (ISE), Kholmsk Distr., Slepikovskogo Peninsula, 20.VII.1985, 14.VIII.1990 (AB). **Khabarovsk Province:** 2 ♂♂, 6 ♀♀ (ISE), 20-25 km SE of Khabarovsk, Bolshoi Khekhtsyrt Mt. Range, Bolshhekhkhtsyrt Nature Reserve, 15-22.VI.1987 (DL); 1 ♀ (ISE), same locality, 2.VI.1988 (S.V. Ivanov); 1 ♂ (IBPN), Okhotsk Distr., Ulya River, Amka River mouth, VIII.1987 (V.V. Zherikhin). **Amurskaya Area:** 3 ♂♂ (ZMMU), Khingansky Nature Reserve, 14.VIII.1983 (YM). **Yakutia:** 1 ♂ (IBPN), Kempendyai (62°05'N 118°50'E), 20-24.VII.1988 (K.Y. Eskov). **Magadan Area:** 1 ♂ (IBPN), Snezhnaya Valley, 16.V.1993 (YM). **Tuva:** 2 ♂♂ (ISE), Tandinsky Distr., Lake Chagyrtai, 1200 m, 27.VI.1989 (DL); 1 ♀ (ISE), same distr., 6-10 km N of Shuurtmak, 10.VII.1993 (DL); 2 ♂♂, 3 ♀♀ (ISE), Todzha Distr., Lake Azas, 900 m, 19-23.VI.1989 (DL). **KAZAKHSTAN:** Taldy-Kurgan Area: 1 ♂ (ISE), Aidarly, 25.IV.1990 (V. Linsky). **JAPAN:** 1 ♂ 1 ♀ (HIC), Honshu Isl., Nagano Pref., Ogata-gun, Tobu-cho, Yunomaru-Kogen, 6.VIII.1983 (A. Tanikawa). **CANADA:** Alberta: 1 ♂, 1 ♀ (CNC), McMurray, 15.VI.1953 (G.E. Ball); 4 ♀♀ (CNC), Morley, 5.VI.1963 (A.L. Turnbull); 1 ♂, 1 ♀ (ISE), Waterton Lake Nat'l Park, Blackiston Valley, 16.VI.1980 (I.M. Smith); 2 ♂♂ (CNC), ca. 0.5 km E Writing-on-Stone Prov. Pk.,

22.V-6.VI.1981 (D. McCorkle); 2 ♂♂, 1 ♀, 1 juv. (AMNH), Little Smokey River, ca. 6 mi So. Guy, 117°07'W, 55°25'N, 4.VIII.1965 (WI). **British Columbia:** 1 ♂, 1 ♀ (AMNH), Forbidden Plateau, Vancouver Isl., 6-9.VIII.1951 (RG); 2 ♂♂ (AMNH), Vancouver Isl., Tofino, VIII-IX.1950 (RG); 1 ♂, 2 ♀♀ (AMNH), Vancouver Isl., Wellington, 20-24.VIII.1950 (RG); 1 ♂ (AMNH), Vancouver Isl., Parksville, 3.VIII.1949 (RG); 1 ♂ (AMNH), Wellington, V.I., 1-15.10.1951 (RG); 1 ♂ (AMNH), Lake Cameron, V.I., 1.IX.1953 (RG); 1 ♂ (AMNH), Swift River at 131°45'W 59°56'N, 2.IX.1968 (WI); 4 ♂♂ (AMNH), Terrace, 128°36'W 54°31'N, summer 1937 (M.H. Clark). **Manitoba:** 1 ♂ (AMNH), Elkhorn, 12.IX.1968 (WI); 1 ♂ (CNC), Lake Audy, Riding Mts. Nat'l Park, 21.VIII.1979 (J. & M. Redner). **North West Territories:** 1 ♂ (CNC), Norman Wells, 20.VI.1949 (W.R. Mason). **Ontario:** 1 ♂ (CNC) 30 mi E of Dryden on Trans Canada Hwy., 9.V-16.VI.1963 (A.L. Turnbull). **Saskatchewan:** 1 ♂, 1 ♀ (AMNH), Saskatoon, summer 1929. **Yukon Territory:** 1 ♂, 1 ♀ (CNC), ca. 58 mi E of Dawson City, 2050', 10.VIII.1962 (P.J. Skitsko); 2 ♀♀ (IBPN), Carmacks env., 136°22'W 62°11'N, 19.VII.1993 (YM); 1 ♂, 1 ♀ (IBPN), Lake Laberge, W bank, 61°04'N, 16.VII.1993 (YM). **UNITED STATES:** **Alabama:** 1 ♂ (MCZ), Auburn (R.V. Chamberlin) (Note: this specimen may have been misplaced by someone from a sample from Utah). **Alaska:** 1 juv. (AMNH), College, near Fairbanks, 147°W 64°N, 26.VI.1945; 2 ♂♂, 2 ♀♀ (UWBM), Lituya Bay (GBNM), 58.586°N 137.538°W, Steelhead Cr, 230', muskeg, 15.VIII.1978 (D.H. Mann); 1 ♂, 1 ♀ (IBPN), ca. 25 km E of Fairbanks, Moose Ck., 3.VII.1993 (YM). **California:** 1 ♀ (AMNH), Trinity County, Trinity River Camp ground, 17.VII.1953 (A.T. McClay); 1 ♂ (AMNH), Trinity County, ca. 3 mi W of Del Loma, 21.VIII.1959 (VR, JG); 6 ♂♂, 3 ♀♀ (AMNH), Carrville, W 122°42'N 41°4', VII.1934 (J.P. Saepe & B.J. Hall); 2 ♂♂, 1 ♀ (AMNH), Madera County, ca. 5 mi N of Northfork, 9.VII.1958 (VR, JG); 1 ♂ (AMNH), Marin County, Mill Valley among Redwoods, 7.VII.1956 (JG, VR); 1 ♂ (AMNH), Mono County, Lake Silver, Schick Montane Forest, 6.VII.1959 (D. Verity); 1 ♂ (AMNH), near Roads and Sequoia Natl. Forest, 3.VII.1956 (JG, VR); 1 ♂ (AMNH), Mendocino County, Elk, 16.II.1967 (VR); 1 ♀ (AMNH), Santa Cruz County, Big Basin Redwood St. Park, 21.VII.1953 (W.J. & JG); 1 ♂ (AMNH), Ben Lomond, 122°42'W 37°5'N, 04.1934 (L.W. Saylor); 1 ♂ (AMNH), Los Angeles County, Beverly Glen Canyon, 26.IV.1957 (R.X. Schick); 2 ♂♂ (AMNH), Los Angeles County, Santa Monica Mts., 22.V.1954 (R.X. Schick); 1 ♂, 2 ♀♀ (AMNH), Los Angeles County, Santa Monica Mts., I-III.1953 (R.X. Schick); 1 ♂ (AMNH), Los Angeles County, Old Topanga Canyon, 1-2 mi W H'Way 27, 30.VI.1957 (R.X. Schick); 1 ♂ (AMNH), Yosemite Natn. Park, Wawona Camp, 17.IX.1941 (WI); 5 ♀♀ (AMNH), Carrville, 122°42'W 41°4'N, VII.1934 (J.W. Saepe & B.J. Hall); 1 ♂ (AMNH), Eldorado County, Meyers, 6337', 11.VII.1952. **Colorado:** 1 ♂, 1 ♀ (AMNH), Mancos, 30.VI.1960 (O.W.F. Rapp, Jr.); 1 ♂, 1 ♀ (AMNH), Larimer County, Estes Park, 27.VIII.1961 (JG & WI); 1 ♂ (AMNH), Mesa Verde Nat. Park, Pinyon Pine-Juniper, 29.VI.1944. **Idaho:** 4 ♂♂, 3 ♀♀ (AMNH), Mesa, W 116°53'N 44°37', 5.IX.1943 (WI); 5 ♂♂, 6 ♀♀ (AMNH), N.E. Fruitland, W 116°55'N 44°1', summer 1943 (WI); 1 ♂ (AMNH), ca. 2 mi NE of Fruitland, 30.VI.1943 (W. Ilie); 2 ♂♂, 1 ♀ (AMNH), same locality, W 116°55'N 44°2', 5-15.IX.1947 (WI); 2 ♂♂, 1 ♀ (AMNH), NE Fruitland, W 116°55'N 44°2', 24.X.1940 (WI); 1 ♂ (AMNH), Pineview, 111°W 44°N, 14.VIII.1940 (WI); 1 ♂ (AMNH), Kooskia, Clearwater Creek, 115°50'W 46°10'N, 23.VIII.1940 (WI); 1 ♂ (AMNH), Smith Ferry, 116°6'W 44°18'N, 6.VII.1943 (WI); 1 ♂ (AMNH), along Snake River: E of dam: 6700', 8.VIII.1958 (D.C. Lowrie); 1 ♂ (AMNH), Blacktail Butte: 6500', 9.VIII.1958 (D.C. Lowrie); 1 ♂ (AMNH), Nez Perce County, Cottonwood Cr., Myrtle, 28.IV.1961 (W.F. Barr); 5 ♂♂, 1 ♀ (AMNH), Payette (North Side of Town), 116°56'W 44°5'N, 20.VI.1953 (WI); 1 ♂ (AMNH), Boise, 1.VII.1938. **Montana:** 1 ♂, 1 ♀ 2 juv. (AMNH), 4500', Clark Fork, Cabinet Natl. Forest, 4.VII.1950 (BM); 1 ♂, 1 ♀ 1j (AMNH), Thompson Falls, 26-30.VI.1950 (BM); 1 ♂ (AMNH), Glacier Nat. Park, North Fork Road at Anaconda Creek, 5.VIII.1953 (HL); 1 ♂ (AMNH), Lake MacDonald, Glacier Park, 15.VII.1936 (E. Spath); 1 ♂ (AMNH), ca. 12 mi S of Neihart, 16.VIII.1949 (W.J. & JG); 1 ♂, 1 ♀ (MCZ),

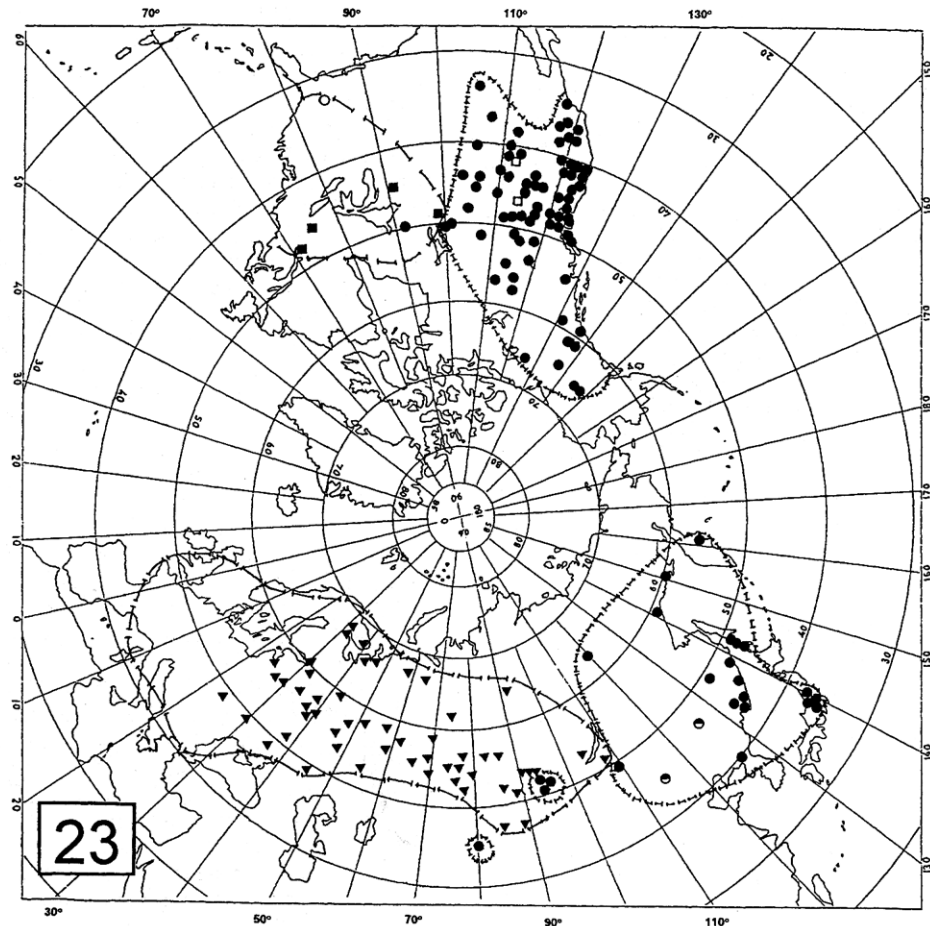


Fig. 23. Distribution of *Evarcha prozyskii* sp.n. (circle, semiclosed circle — province record), *E. hoyi* (square, open square — doubtful record) and *E. falcata* (triangle).

Рис. 23. Распространение *Evarcha prozyskii* sp.n. (кружки, наполовину закрашенные кружки — указания для областей), *Evarcha hoyi* Peckhams (квадраты, незакрашенные квадраты — сомнительные указания) и *Evarcha falcata* Clerck (треугольники).

Glacier Nt. Pk., North Fork Rd, S of Logging Ck, 5.VIII.1953 (HL); 2 ♂♂, 1 ♀ (MCZ), Flathead County, Bigs Fork 3000', 24.VIII.1957 (HL); 3 ♂ 1 ♀ (MCZ), Red Cliff campground, Gallatin Vall., Gallatin County, 18.VIII.1951. **New Mexico:** 2 ♂♂ (AMNH), Lincoln County, Cedar Creek Camp, ca. 2 mi N. Ruidoso, 7000', 1-3.VII.1961 (F., P. & J. Rindge); 1 ♂ (AMNH), Rock Cr. Camp, Nimbres Mts., 7.IX.1941 (WI); 1 ♂ (AMNH), Bandelier, VIII.1977 (W.F. Pippin); 1 ♂ (NMSU), Otero County, Sacramento Mountains, Osha Trail, 9000 feet, 6.VIII.1988 (D.B. Richman). **North Dakota:** 1 ♂ (AMNH), North Roosevelt Natl. Park, 28.VII.1955 (F. & P. Rindge). **Oregon:** 2 ♂♂ (AMNH), Corvallis, on lawn, 9.V-4.VII.1948 (VR); 1 ♂, 2 ♀♀ (AMNH), same locality, 9-18.V.1951 (VR); 1 ♂ (AMNH), ca. 6 mi SW of Corvallis, 13.XI.1949 (VR); 4 ♂♂, 3 ♀♀ (AMNH), McMinnville (Peavine Ridge), 123°W, 45°N, VII-IX.1946 (K.M. Fender); 1 ♂ (AMNH), same locality, 1.VI-10.VII.1946 (K.M. Fender); same locality, 3 ♂♂ (AMNH), V-VIII.1947; 1 ♂ (AMNH), McMinnville, 28.VI.1942 (BM & B. Fender); 1 ♂, 1 ♀ (AMNH), McMinnville, summer 1935 (B. Fender); 1 ♂ (AMNH), Lane County, Eugene, Spencer Butte, 18.V.1957 (BM); 3 ♂♂, 3 ♀♀ (AMNH), Spencer Butte, Eugene, 700-1100', VIII-IX.1941 (BM); 2 ♂♂ (AMNH), Lane County, summers of 1941 and 1942 (BM); 1 ♂ (AMNH), Lane County, Blachly, 17.V.1942 (BM); 2 ♀♀ (AMNH), Lane County, McCredie Springs, 26.IV.1947 (BM); 1 ♂, 1 ♀ (AMNH), Indian Ford, ca. 7 mi W of Sisters, 11.IX.1948 (VR); 1 ♂ (AMNH), Saddleback Mt., Lincoln County, 3.X.1959 (J.C. Dirks-Edmunds); 1 ♂ (AMNH), Meacham L., W 118°45', 4.07.1938 (WI); 2 ♂♂,

1 ♀ (AMNH), Portland, 15.VII.1935 (J.M. Pierson); 3 ♂♂, 1 ♀ (AMNH), Scappoose, 3-28.IV.1938 (K. Gray & JS); 3 ♂♂, 4 ♀♀ (AMNH), Goble, 22.IV.1938 (K. Gray & JS); 1 ♂ (AMNH), Lake County, Paisley, 28.VI.1951 (BM); 1 ♂ (AMNH), Lake County, Lakeview, 27.VI.1951 (BM); 1 ♂ (AMNH), Jackson County, VI-VII.1935 (F. Lawrence); 1 ♂ (AMNH), Mosier, 5.V.1938 (K. Gray & JS); 1 ♂ (AMNH), ca. 5 mi N. Brookings, 29.V.1948 (VR & Brown); 1 ♂ (AMNH), Klamath County, Bly Mtn., 15.IX.1960 (JS); 1 ♂ (AMNH), Coos County, 17.V.1942 (BM); 2 ♂♂, 5 ♀♀ (AMNH), Parkdale, 27.V.1938 (K. Gray & JS); 1 ♂ (AMNH), Baker, 4200', 12.VIII.1958 (J. Baker); 1 ♂ (AMNH), Curry County, Rogue River, ca. 6 mi E of Gold Beach, 28.V.1952 (BM); 1 ♀ (NMSU), Benton County, McDonald Forest, 21.IV.1982 (Fichter & Moldenke). **South Dakota:** 1 ♂, 1 ♀ (MCZ), Custer County, nr. Lake Stockade, 5200', Black Hills, 8.VIII.1954 (HL); 3 ♂♂ (MCZ), Custer County, nr. Blue Bell, 4900', Black Hills, 19.VI.1954 (HL); 1 ♂ (MCZ), Custer County, 6 mi below Blue Bell on French Ck, Black Hills, 21.VI.1954 (HL); 4 ♂♂, 2 ♀♀ (MCZ), Custer County, nr. Blue Bell, 4900', Black Hills, 7.VIII.1954 (HL); 1 ♂ (MCZ), Custer County, Custer State Pk., 20.VI.1950 (HL); 1 ♂, 1 ♀ (MCZ), Custer County, 3 mi N of Pringle, 5000', 23.VI.1954 (HL); 1 ♂, 1 ♀ (MCZ), Custer County, ca. 3 mi S of Custer, 5500', 23.VI.1954 (HL); 1 ♂ (MCZ), Horsethief Lk., Pennington County, 22.VI.1952. **Utah:** 1 ♂ (AMNH), Shingle Creek E of Cove Forest, W 112°27'N 38°32', 19.X.1947 (WI); 2 ♂♂, 3 ♀♀ (AMNH), City Creek Canyon, ca. 3 mi NE of Salt Lake City, 111°47'W 40°47'N, V.1934 (WI); 1 ♂

(AMNH), Salt Lake City, ca. 4 mi up City Creek, 12.VI.1941 (BM); 3 ♂ (AMNH), City Canyon (3 mi up), 10-12.VII.1939 (WI); 1 ♂ (AMNH), Little Cottonwood Canyon near Salt Lake City, (JG); 2 ♂♂ (AMNH), American Fork Canyon at Timpangos Park, 13.VI.1941 (WI); 2 ♂♂ (AMNH), So Fork Raft River, ca. 8 mi S of Lynn, 113°W 41°N, 6.IX.1932 (WI); 1 ♂ (AMNH), Beaver Creek, IX.1931 (JG); 1 ♂ (MCZ), Lake Bear (R.V. Chamberlin); 1 ♂ (NMSU), Cache County, Logan Canyon, VII.1990 (W.J. Ehmann). **Washington:** 1 ♂ (ISE), Seattle, University of Washington Campus (SW part: Brooklin Ave. NE), 16.V.1996 (YM); 3 ♂♂, 3 ♀♀ (AMNH), Cedar Lake, N. Leadpoint, 117°35'W, 48°55'N, V-VI.1962 (WI); 2 ♂♂, 1 ♀ (AMNH), Seattle, V.1953 (BM); 2 ♂♂ (AMNH), same locality, 25.IX.1954 (BM); 1 ♂ (AMNH), Snohomish County, Lake Chase, 25.VII.1954 (BM); 2 ♂♂ (AMNH), Denny Creek, Snoqualmie Pass, 121°22'W 47°24'N, 16.VII.1935 (WI); 1 ♂ (AMNH), Pend Oreille County, Lake Thomas (Little Pend Oreille Lakes), 3150', 19.VI.1954 (BM); 1 ♂ (AMNH), Saltwater St. Park, W122.19, N47.22, 10.IX.1965 (J. & WI); 1 ♂ (UWBM-7903), Chelan County, Grouse Mtn. Spr., 42-4300', 47.987°N 120.311°W, 20-21.VII.1985 (RC); 1 ♀ (ISE), Chelan County, Fish Lake, 588 m, 47.825°N, 120.720°W, 19.V.1996 (YM); 2 ♂♂ (UWBM-8122), Snohomish County, Lake Crabapple, 420', 48.13°N, 122.27°W, 5.IX.1966 (J.R. Thomson); 1 ♂ (UWBM-8372), Pend Oreille County, Pend Oreille Riv., 2040', 48.393°N 117.282°W, 10.VI.1986 (RC); 1 ♂ (UWBM-8512), Skagit County, Marble Ck/Cascade R. Rd., 1200', 48.535°N 121.272°W, 16.VII.1988 (M. Foster); 1 ♂, 1 ♀ (UWBM-8617), Whatcom County, Rocky Ck., 2150', 48.676°N 121.777°W, 13.IX.1986 (RC); 1 ♂ (UWBM-8877), Stevens County, Bodie Mtn. Pond, 3180', 48.863°N 117.777°W, 22.VI.1992 (RC); 1 ♂, 1 ♀ (UWBM-5714) Klickitat County, State Hwy 141 nr. Hsum, 440', 45.793°N 121.490°W, 4.05.1980 (RC); 1 ♂ (UWBM-6028), Cowlitz County, Carrolls Bluff, 220', 46.006°N 122.865°W, 9.X.1986 (RC); 1 ♂ (UWBM-6122), Skamania County, 46.175°N 122.224°W; 1 ♂ (UWBM-6335), Wahkiakum County, 46.356°N 123.580°W; 1 ♂ (UWBM-6519), Lewis County, 46.5°N 121.9°W; 1 ♂ (UWBM-6706), Yakima County, 46.75-86°N 120.60-75°W; 1 ♂, 1 ♀ (UWBM-7131), Mason County, 47.177°N 123.145°W; 1 ♂ (UWBM-7475), Spokane County, 47.43°N 117.54°W; 1 ♂ (UWBM-7518), King County, 47.571°N 121.863°W; 1 ♂ (UWBM-7643), Jefferson County, 47.60-61°N 124.37°W; 1 ♂ (UWBM-7778), Lincoln County, 47.747°N 117.885°W; 6 ♂♂, 5 ♀♀ (UWBM-6827), Thurston County, Rainier (1 mi W) 465', 46.886°N 122.715°W, 8.IX.1964 (J.R. Thomson); 2 ♂♂, 2 ♀♀ (UWBM-6836), Grays Harbor County, Tuttle Ck, 140-200', 46.858°N 123.633°W, 23.VII.1989 (RC); 1 ♂ (UWBM-7108), Kittitas County, 47.115°N 120.807°W, Morrison Canyon, 2350', 25.V.1986 (RC); 5 ♂♂, 1 ♀ (UWBM), from different vials, from the above counties. **Wyoming:** 1 ♂ (AMNH), Grand Teton Nat'l Pk.: Moran: SW slope Pond S of Dam, 3.VIII.1950 (D.C. Lowrie); 1 ♂ (AMNH), Elk Range, Jackson Hole, browsed aspen, 21.VII.1945; 1 ♂ 1 ♀ (AMNH), Snake River, ca. 8 mi E of Alpine, 12.VIII.1949 (WJ & JG); 1 ♂ (AMNH), Teton County, Grand Teton Nat'l Pk.8: Signal Mtn., 6.VII.1953 (D.C. Lowrie); 1 ♂ (AMNH), Moran, Signal Mtn., VII.1950 (WI).

NAME. The species honours Prof. J. Prószyński (Poland), a prominent expert in Salticidae.

DIAGNOSIS. The ♂ of *E. prozyskii* is very similar to the American ♂♂ of *E. hoyi*, but they can be separated by the relatively broader embolus and almost parallel margins of the tibial apophysis. While the width of the embolus is somewhat variable, in the new species it is never as sharply pointed as in *E. hoyi*, and is always bent in the apical part (cf. Figs. 6-8 and 9-11). The tibial apophysis of *Evarcha prozyskii* is never broadened at base like in *E. hoyi* (cf. Figs. 2 and 3). No differences in the colour pattern have been traced between the three species of the complex. Females of both Nearctic species, *E. prozyskii* and *E. hoyi*, can easily be separated by the longer and wider copulatory (insemination) ducts in the new species (Figs 19, 20) and the corresponding shorter

(smaller) lateral pockets. However, ♀♀ of *E. falcata* cannot be separated readily from those of *E. prozyskii*. So, if males are lacking, especially in the intermediate zone, no reliable determination of two latter species is possible at the moment.

DESCRIPTION (paratypes from the type locality: Lazovsky Nature Reserve). **Male:** Measurements. Carapace: 2.98 long, 2.05 wide, 1.23 high at PLE. Ocular area: 1.25 long, 1.63 wide anteriorly and 1.65 wide posteriorly. Diameter of AME 0.50. Abdomen 2.93 long, 2.00 wide. Cheliceral length 0.95. Clypeal height 0.23. Length of leg segments: leg I — 1.70 + 1.15 + 1.28 + 0.90 + 0.55; leg II — 1.48 + 0.90 + 1.00 + 0.78 + 0.50; leg III — 1.95 + 0.80 + 1.00 + 1.12 + 0.60; leg IV — 1.70 + 0.78 + 1.08 + 1.23 + 0.58. Leg spination. Leg I: Fm. d.0-1-1-3ap.; Pt. pr.0-1-0; Tb. pr.1-1, v.2-2-2ap.; Mt. v.2-2ap. Leg II: Fm. d.0-1-1-4ap.; Pt. pr.0-1-0; Tb. pr.1-1-1, v.1-2-2ap.; Mt. pr.1-1, v.2-2ap. Leg III: Fm. d.0-1-1-2ap.; Pt. pr. and rt.0-1-0; Tb. d.1-0, pr. and rt.1-1-1, v.1-2ap.; Mt. d.1-0, pr. and rt.1-2ap., v.2-2ap. Leg IV: Fm. d.0-1-1-2ap.; Pt. pr. and rt.0-1-0; Tb. d.1-0, pr. and rt.1-1-1, v.1-2ap.; Mt. pr. and rt.1-1-2ap., v.1-2ap. Coloration as described for *E. falcata*. Palpal structure as in Figs 1, 2, 6-8.

Female: Measurements. Carapace 3.08 long, 2.18 wide, 1.34 high at PLE. Ocular area 1.28 long, 1.78 wide anteriorly and 1.83 wide posteriorly. Diameter of AME 0.50. Abdomen 4.00 long, 2.75 wide. Cheliceral length 0.95. Clypeal height 0.23. Length of leg segments: leg I — 1.63 + 1.05 + 1.08 + 0.83 + 0.53; leg II — 1.58 + 1.00 + 0.90 + 0.75 + 0.48; leg III — 1.98 + 1.00 + 0.93 + 1.11 + 0.58; leg IV — 1.95 + 0.90 + 1.11 + 1.30 + 0.60. Leg spination. Leg I: Fm. d.0-1-1-3ap.; Pt. pr.0-1-0; Tb. pr.1-1, v.2-2-2ap.; Mt. v.2-2ap. Leg II: Fm. d.0-1-1-4ap.; Pt. pr.0-1-0; Tb. pr.1-1-1, v.1-2-2ap.; Mt. pr.1-1, v.2-2ap. Leg III: Fm. d.0-1-1-4ap.; Pt. pr. and rt.0-1-0; Tb. pr. and rt.1-1-1, v.1-2ap.; Mt. d.1-0, pr. and rt.1-2ap., v.2-2ap. Leg IV: Fm. d.0-1-1-3ap.; Pt. pr. and rt.0-1-0; Tb. pr. and rt.1-1-1, v.1-2ap.; Mt. d.1-0, pr. and rt.1-1-2ap., v.1-2ap. Coloration as described for *E. falcata*, but often darker. Epigyne and spermathecae as in Figs 14, 19, 20.

DISTRIBUTION. The species displays a Siberian-American temperate pattern (see Fig. 23). In the Palaearctic, it has been recorded in Tuva, S-Siberia in the west, up to Vilyuy River and Magadan in the north, down to Jilin Prov., China, Korea and the central part of Honshu Island, Japan in the south, and up to Kamchatka Peninsula in the east. In the Nearctic, it has been found in central Alaska in the northwest down to southern California and New Mexico in the south, up to western Ontario in the east and to New Mexico in the southeast. The record of *E. hoyi* in Hainan Island, China [Peng et al., 1993] may prove to actually belong to a different species. The specimen from Alabama was most probably mislabelled or switched (Crawford, personal communication).

In the Palaearctic, this species has been found sympatrically (i.e. present at the same general area but in different localities) with *E. falcata* in Tuva only. In the Nearctic, *E. prozyskii* and *E. hoyi* have overlapping or scarcely contacting distributions in North Dakota and Ontario. Specimens of *E. hoyi* from Montana and Utah seem to be mislabeled. Besides the sole above Japanese locality, this species is known in Japan also from the Fukushima, Tochigi, Gumma and Yamanashi prefectures, all on Honshu Island, where it occurs in the

mountains above 1,500 m a.s.l. (Ikeda, personal communication). In Japan, this species has first been recorded by Ono [1975: sub *E. flammata*].

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